Thematic plan of independent work of the student in the discipline "Toxicological chemistry" for students of the educational program of the specialist degree in the specialty of training 33.05.01. Pharmacy direction (profile) Pharmacy, form of study full-time (face to face) for the 2023-2024 academic year

| $N_{\underline{0}}$ | The topic of independent work | Hours |
|---------------------|---|------------|
| | | (academic) |
| | General toxicological chemistry | 7 |
| | | semester |
| 1. | Chemical-toxicological analysis plan. Analytical screening, | 7 |
| | classification and general characteristics of methods. General | |
| | principles for assessing the results of forensic chemical research. ² | |
| 2. | Detoxification methods for poisoning ¹ (natural detoxification, artificial | 9 |
| | detoxification, antidote detoxification and pharmacotherapy) ² . | |
| 3. | Control of independent work | 2 |
| | Chariel torrical arical aboundature | 8 |
| | Special toxicological chemistry | semester |
| 4. | A group of toxic substances isolated by distillation ("volatile" | 6 |
| | poisons). Alkyl halides (chloroform, chloral hydrate, carbon | |
| | tetrachloride, dichloroethane). Aldehydes (formaldehyde). Ketones | |
| | (acetone). Phenol. Physical and chemical properties. Toxicity. Features | |
| | of behavior in the body. Methods of chemical-toxicological analysis. ² | |
| 5. | A group of toxicologically important substances isolated by extraction | 5 |
| | with water. ¹ Mineral acids and alkalis. Nitrates, nitrites. Toxicity. | |
| | Chemical-toxicological analysis. ² | |
| 6. | Ecotoxicants and natural toxins found in the Volgograd region. ¹ | 12 |
| | Sources, classification, toxic effects, methods of determination. ² | |
| | Control of independent work | |
| 7. | Control of independent work | 2 |
| | Total | 43 |

¹ -Subject

INSTRUCTIONS FOR PERFORMING INDEPENDENT WORK

- 1. Independent work of students includes independent study in the fourth term of three topics provided for by the work program. It consists in preparing an essay on the topic of independent work.
- 2. The completed work is translated into .pdf format, placed in the section on the educational website of the university, in the course "Toxicological Chemistry", in the section "Independent work".

² - essential content (if necessary)

3. Before posting on the educational site of the university, you must correctly name the file: _Full name students_group_work_1

CRITERIA FOR ASSESSING INDEPENDENT WORK

Each topic of independent work is estimated from 3 to 5 points. Work rated below 3 points is not counted and requires revision by the student.

| Evaluation criteria | Rating score | 7. |
|---|--------------|----|
| The work has not been handed over, not handed over in full, the work does not correspond to the subject of independent work. | 0 -2 | |
| The work was submitted in full, but it contained more than 2 gross thematic errors or omitted more than 1 key issue of the topic of independent work. | 3 | |
| The work was submitted in full, but 1-2 gross thematic errors were made in it or 1 key question of the topic of independent work was omitted. | 4 | |
| The work has been handed over in full, it does not contain gross thematic errors, the key issues of the topic of independent work are not missed. | 5 | |

Considered at the meeting of the department of Pharmaceutical and Toxicological Chemistry "27" 05 2023, protocol No9

Head of the Department of Pharmaceutical and Toxicological Chemistry, Professor

/Ozerov A. A./